REMARKS

In response to the final Official Action of July 24, 2008, claims 1, 4, 6, 10, 14, 15-20, 23-26, 30, and 31 have been amended, claims 5, 7, 8, 21, 22, 27-29, and 32 have been canceled, and claims 33-40 are newly submitted. After this amendment, claims 1-4, 6, 9-12, 14-20, 23-26, 30, 31, and 33-40 are pending.

More particularly, independent claims 1, 15, and 26 have been amended to shorten their preambles. In addition, the feature of original claim 5 is now included in these independent claims; namely, that a dragging element is displayed on the user interface, that the course of motion is performed on the user interface by dragging the dragging element, that the dragging element is displayed at a predetermined position of the user interface (see, for example, Figures 2a and 2b of the present application where the black box is the dragging element 5 that is positioned on the corner of the user interface, that is, at a predetermined position), and that the dragging element is independent of the content displayed on the user interface (this feature is supported by Figures 2a and 2b in the original specification as filed, since it is apparent from these figures that the black box is not part of the content that is actually displayed on the user interface). No new matter is added.

Claim 14 has been amended in response to the statutory subject matter rejection.

Furthermore, device claims 15-26 have been amended to recite an apparatus. No new matter is added.

Newly submitted claims 33-37 are directed to the feature of the touch-screen display as originally presented in the independent claims from which support is found.

Newly submitted dependent claims 34 and 38 specify that the predetermined position is a corner of the user interface as disclosed in the original application as filed, including Figures 2a and 2b.

New dependent claims 35, 36, 39, and 40 are directed to the amount of change of orientation caused by dragging the dragging element from a corner to a neighboring corner and from a corner to a diagonally opposite corner, respectively. Support for these claims is found in the original application as filed, including Figures 2a and 2b and the corresponding description in the specification at page 11, lines 12-22. No new matter is added.

Claim Rejections - 35 USC §101

At section 2, claim 14 is rejected under 35 USC §101 as directed to non-statutory subject matter. Claim 14 has been amended to recite a computer readable medium storing a computer program with instructions so that when executed by a processor performs the method of claim 1. Clearly a memory is being claimed, that memory being stored with instructions, wherein these instructions when executed by a processor perform actions, those actions being recited in claim 1.

It is therefore respectfully submitted that the claim is not directed to a program itself, but rather to a computer readable medium storing a computer program with instructions. Those instructions are such that when executed by a processor, the actions recited in claim 1 are performed. Clearly, such actions are functional in nature and, as a result, it is respectfully submitted that the storage of instructions in a computer readable medium for execution by a processor so as to perform such functions is clearly statutory within the meaning of 35 USC §101 (see MPEP §2106 and §2106.01 Computer-Related Non-Statutory Subject Matter Patentability).

Claim Rejections - 35 USC §103

At section 4, claims 1-12, and 14-29 are rejected under 35 USC §103 as unpatentable over US patent application publication 2003/0184525, Tsai. With respect to claim 1, it is asserted that Tsai discloses a method for changing an orientation of a user interface comprising the actions as claimed, except that Tsai does not explicitly disclose displaying an input control logic (dragging element as explained by the applicant) on the user interface. The Office contends that Tsai teaches rotating an image on a display by touching the panel and dragging across quadrants to rotate, as well as teaching of image being on the display and that it would be obvious to one of ordinary skill in the art at the time the invention was made "to use drag the hat of the snowman image of Tsai and use it as a dragging element or input control logic in order to display an input control logic (an element to drag) to rotate the snowman image on the display." Applicant respectfully disagrees with respect to amended claim 1 for the reasons presented below.

Subject Matter of the Present Invention

The present invention relates to changing an orientation of a user interface. A dragging element is displayed on a user interface, wherein the dragging element is independent of content displayed on the user interface and is displayed at a predetermined position of the user interface. A course of motion that is performed on the user interface by dragging the dragging element is detected. An orientation of the user interface with respect to a physical device that the user interface is integrated in is changed according to this detected course of motion.

The Office relies upon Figures 2A-2C of Tsai with respect to its rejection of claim 1. Applicant agrees that Tsai discloses in these figures a device in which a course of motion that is performed on a user interface is detected and that an orientation of said user interface with respect to a physical device that the user interface is integrated in is changed according to this detected course of motion.

However, Tsai fails to disclose at least the following features of amended claim 1:

- A dragging element displayed on said user interface, wherein the dragging element is independent of content displayed on said user interface,
- The dragging element is displayed at a predetermined position on said user interface, and
- The course of motion is performed by dragging the dragging element.

Such features of the present invention are clearly shown in Figures 2a and 2b in which dragging element 5 is shown having a predetermined position, such as shown in the lefthand most image of Figure 2a; namely, at the right upper corner of the touch-screen display 2. The course of motion is by dragging this dragging element as clearly seen in these figures, resulting in changing an orientation of said user interface with respect to a physical device said user interface is integrated in according to said detected course of motion. Such actions are clearly described in the specification as originally filed, including page 12, line 12 through page 13, line 4.

In addition to these features not being disclosed in Tsai, it is also respectfully submitted that they are not obvious in view of the teaching of Tsai.

In particular, in Tsai, the course of motion is performed by dragging with a finger on a touch-screen display, wherein, when this dragging crosses a quadrant boundary (quadrants Q_1, Q_2, Q_3, Q_4 separated by the dashed lines forming the quadrant boundaries - see Figures 2A and 2B of Tsai), a change of the orientation of the user interface is triggered. In fact, the only displayed features or entities in Tsai that are even remotely related to a dragging element are the image components shown on the user interface of Tsai, for instance, the components of the snowman shown in Figures 2A-2C; that is, for example, the hat shown as forming part of snowman 23. However, these components are dependent of the content displayed on the user interface and are not disclosed as being positioned at a predetermined location of the user interface.

Furthermore, it is respectfully submitted that the present invention displaying a dragging element on a user interface, wherein the dragging element is independent of content displayed on said user interface, as well as positioning this dragging element at a predetermined position on the user interface results in a method for changing an orientation of the user interface which is intuitive to use and robust in such use. The feature that the dragging element is independent of the changing content that is displayed on the user interface allows a user to be aware of the dragging element and therefore its functionality that the orientation of the user interface can be changed. The feature that the dragging element is displayed at a predetermined position insures that changing an orientation of the user interface is only performed when the dragging element at this particular predetermined position is selected and dragged by the user, in contrast to the approach disclosed in Tsai, where basically each point of the user interface can serve as a starting point for a dragging path so that unwanted changing of the orientation of the user interface is effectively pre-programmed in the particular device. This is especially a potential problem where a user of the device might be exposed to unpredictable movement, such as if the user holds the device with one hand and if the device is being used in an environment where the user is potentially in motion (such as in a train or airplane).

For all of the foregoing reasons, it is respectfully submitted that amended claim 1 is clearly distinguished over Tsai.

Independent apparatus claims 15 and 26 have been amended in a manner similar to claim 1 and, for similar reasons, each of these claims is also believed to be distinguished over Tsai.

Since each of the independent claims of the present application are distinguished over Tsai, it is respectfully submitted that dependent claims 2-4, 6, 9-12, 14, 16-20, and 23-25, are also distinguished over Tsai at least in view of such dependency.

At section 5, claims 30-32 are rejected under 35 USC §103(a) as unpatentable over Tsai further in view of US patent 5,513,309, Meier, et al. Claim 32 is canceled. Claims 30 and 31 are respectively dependent on independent claims 1 and 5 and are believed to be allowable at least in view of such dependency.

Furthermore, newly submitted dependent claims 33-40 are also believed to be allowable at least in view of their ultimate dependency from independent claims which are believed to be allowable.

Furthermore, with respect to new claims 34 and 38, the feature of these claims is that the predetermined position is a corner of the user interface. This feature contributes to avoiding blocking of content by the dragging element. Tsai actually teaches away from such a feature since in the embodiment shown in Figures 2A-2C of Tsai, the user interface is segmented into four quadrants by two boundaries (the dash lines forming an X). It is apparent that when starting a dragging path in a corner, such as in the upper right corner, and if intending to cause a counter-clockwise rotation, for example, depending on which quadrant point P1 is determined to lie in (such as quadrant Q_1 shown in Figure 2A), a particularly long dragging path may be needed in order to cross a quadrant boundary (so as, for example, to end in quadrant Q_2) and thereby trigger rotation of the display.

Thus, in the embodiment shown in Figures 2A-2C of Tsai, the corners of the user interface are undesirable starting points for dragging paths, especially since there is potential ambiguity as to which quadrant the starting point is located in (such as, if the upper right-hand corner is selected for the starting point P1 for the figure shown in 2A of Tsai, the starting point could arguable be in either quadrant Q_1 or Q_4). For these reasons as well, dependent claims 34 and 38 are believed to be further distinguished over Tsai.

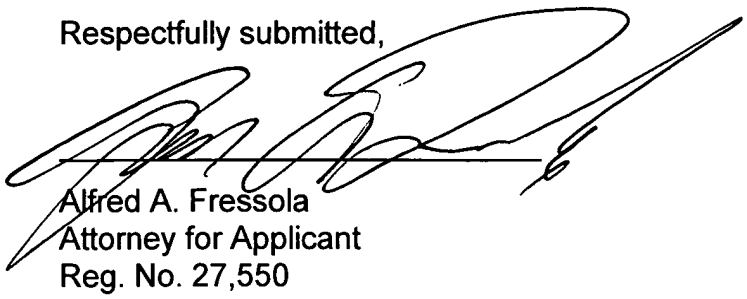
With respect to new claims 35 and 39, the feature of these claims is that dragging of the dragging element from one corner to a neighboring corner causes the orientation of the user interface to be changed by 90°. This has the advantage that detection of the course of motion is rendered much more robust since the user is forced to drag the dragging element for a relatively long distance which is easily detected even when a relatively inexpensive user device with a relatively inexpensive user display is used.

In contrast, in Tsai, a user can expect to trigger rotation of the display by performing a short dragging path that connects two closely-spaced points in different quadrants (for example, if the starting point P1 is close to the dash line separating quadrants Q_1 and Q_4), which may lead to difficulty of use in a case where one of the starting points and the ending point are not correctly detected (for example, if both are detected to lie in the same quadrant) and therefore no rotation occurs. Furthermore, as mentioned above, Tsai teaches away from the claimed solution, since the corners of the user interface are generally undesirable starting and ending points of a dragging path due to the potential ambiguity of determining whether the starting or ending point is on one side or the other of the dash line separating the quadrants displayed.

For all of the foregoing reasons, it is therefore respectfully submitted that dependent claims 35 and 39 are further distinguished over Tsai.

In view of the foregoing, it is respectfully submitted that the present application as amended is in condition for allowance and such action is earnestly solicited.

Respectfully submitted,



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